

ABSTRACT

The present invention intends to provide a surface-emitting laser light source capable of generating a linearly polarized laser light having a single-lobed beam profile that takes the 5 largest intensity value in its central area. A two-dimensional photonic crystal consisting of a plate member 31 with holes 311 or 312 arranged in a square lattice pattern is provided on one side of an active layer 23. The hole 311 or 312 is designed so that its plane shape on the emission side (plane "B") is smaller than that on the active layer side (plane "C"). The center of gravity of the shape on plane "B" is displaced from that of the shape on plane "C" in the 10 in-plane direction. This design lowers the degree of the in-plane symmetry of the two-dimensional photonic crystal, so that a linearly polarized laser light having a single lobe is obtained.